

### REMARKS

In view of the above amendments and following remarks, reconsideration of the rejections that are contained in the final Office Action of May 31, 2007 is respectfully requested.

Firstly, independent claim 5 has been amended to recite that the in-line roller skating for racing according to the present invention has the sole of the footwear, in addition to having the heel-piece zone, also provided with a toe juncture area corresponding to an area of a foot where the toes of the foot join the foot. Support for this limitation may for example be found on page 4 of the substitute specification beginning at about line 25.

Claim 5 has been further amended to remove the "height" limitation previously defined in the last paragraph of the claim.

Claim 5 has been further amended to include the limitation of claim 6, reciting that the center to center distance between the first and second binding points is between 170 mm and 210 mm. Claim 6 has accordingly been canceled.

#### The Rejections made by the Examiner

Claims 5-7 were rejected as being unpatentable over Borel, U.S. Patent 6,340,164. The Examiner, in making the rejection, takes the position that it would have been obvious to one of ordinary skill in the art to manufacture wheels having diameter of at least 100 mm, because the Examiner considers this to be the discovery of an optimum value of a result effective variable, involving only routine skill in the art. Under the present circumstances, however, this conclusion by the Examiner is respectfully submitted to be incorrect as a matter of law.

The Examiner further took the position that the center distance between the first and second binding points being between 170 mm and 210 mm would have been obvious to one of ordinary skill in the art, because, where the general conditions of a claim are disclosed in the prior art, the discovery of optimum or workable ranges involve only routine skill in the art. This is also respectfully submitted to be incorrect under the present circumstances. It is also incorrect with respect to the specific binding point of 195 mm as recited in claim 7.

In responding to Applicant's arguments, the Examiner took the position that it has been

held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claim structural limitations. However, this is not the situation in the present application.

The distinctions between amended claim 5 and Borel will be discussed below. In addition, the Examiner's attention is directed to evidence of non-obviousness that accompanies this response, which will also be discussed below.

### The Present Invention

Prior to the development of the present invention, racing-type in-line roller skates that were used in competition were generally provided with wheels having a standard sized diameter of either 80 mm or 84 mm, depending upon the characteristics of the skate and the particular needs of the user. The connection of the sole of the footwear to the chassis of the skate of the skate was at a pre-defined center to center distance of 165 mm. See the accompanying Declaration of Dario De Lazzari, page 3.

It had previously been desired to be able to increase the size of wheels to a larger diameter, on the order of 100 mm, in order to boost performance capabilities of the skate, particularly in racing. As shown in Fig. 1 of the present application, one prior art solution was to have three or more wheels of a larger diameter, with one wheel, situated behind the front wheel, having a smaller diameter. This allowed the height of the chassis in relation to the running plane to be within acceptable limits. The chassis also has to be capable of accommodating on its interior screws or rivets to connect the toe of the footwear to that same chassis. Id, page 4.

However, as also discussed in the Background of the Invention, this was considered to be a compromise solution. Thus the object of the present invention is to avoid this compromise prior art solution while being able to provide a skate that can have oversized diameter wheels and avoid the problems associated with a smaller second wheel (which problems include instability, vibration and poor control). A further purpose was to improve torsional rigidity. Id, page 4.

Thus, as shown in Fig. 2, in the present invention footwear 102 has a sole provided with a first binding point for a chassis that is positioned in proximity of a heel-piece zone of the sole

105. A second binding point is positioned approximately in the toe juncture area of the sole 111, which corresponds to an area of the foot where the toes of the foot join the foot. The center to center distance between the first and second binding points is between 170 mm and 210 mm, and thus a greater distance than that in the prior art. This greater center to center distance is reflected in amended claim 5 above. By providing the binding points at these locations, it is possible to provide larger wheels without increasing the height of the chassis from the ground with respect to the prior art. The reason for this is that the toe juncture area binding point is moved to a position with respect to the chassis that is located between the front wheel and the second wheel. See section 9 of the Declaration of Mr. De Lazzari.

The present invention as reflected by amended independent claim 5 in fact represents a combination of features including the binding points being in the heel-piece zone and in the toe juncture area corresponding to the area of a foot where the toes of the foot join the foot; fasteners at such binding points; the at least four wheels solely being wheels having a diameter of at least 100 mm; and the center to center distance between the first and second binding points being between 170 mm and 210 mm. Emphasis is made of the fact that this is a combination of features, and in particular the larger (than the prior art) center to center distance enabling the larger wheels, and the wheels being wheels solely having a diameter of at least 100 mm.

The invention as claimed in independent claim 5 results in better maneuverability and faster speed than in the prior art. Please note section 5 of the accompanying Declaration by Mr. Enzo Prandina, and the accompanying Exhibit M, which is a summary of a study that was made by the Italian Skating Federation. As reflected in that summary, by moving the boot/frame connection to, for example, 195 mm, it is possible to maintain the same ground clearance as with a 5 x 84 mm setup and to fix the wheels at the same distance, one to the other. By contrast, with 165 mm boot/frame connection, there is more space required between the first and second wheels, which has been demonstrated to result in a speed reduction, especially in curves. The low balance of the solution according to the present invention provides greater stability and increased control and sensitivity. Statistical reports of the FIHP demonstrates that the 4 x 100 mm setup according to the present invention provides 4% additional speed as compared with the

previous 5 x 84 mm setup.

#### Claim 5 is not Obvious From Borel

As discussed previously, Borel is directed to a so-called aggressive in-line roller skate. This type of skate has characteristics that are completely opposite to those that are desired for racing skates. Aggressive skates, which are used for running and jumping on a ramp, for example, or for grinding a rail, are not required to be fast. However, they must be highly maneuverable and very close to the ground. Thus they are provided with wheels that have a diameter that is smaller than conventional wheels, certainly not as large as in the present invention. Noting section 7 of the Declaration of Mr. De Lazzari, it may be seen that the subject matter of the Borel patent corresponds to the Salomon "Vinny Minton" model roller skate. The Vinny Minton model that is actually marketed has a wheel size of about 55 mm in diameter (note section 10 of the Declaration). Further, it has a center-to-center distance between the first and second binding points of approximately 167 mm. As discussed in section 11 of the Declaration of Mr. De Lazzari, it is in fact against the knowledge of one of ordinary skill in the art to increase the size of the wheel of the Borel patent. This is because Borel is directed to an aggressive skate, where an increase in the size of the wheels is not an advantage. If anything, such an increase in size would be undesirable.

It is a general rule that the discovery of the optimum value of a result effective variable, if such a result effective variable is known to those of ordinary skill in the art, is obvious. However, it is also the case that if the result effective variable is not recognized in the art, its optimization is not obvious; note MPEP §2144.05(II)(V).

It is also certainly the case that, for example, when combining references, it is improper to combine references where references teach away from their combination. Note for example MPEP §2146(X)(D). A proposed modification should not render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference. Thus it cannot be considered obvious to enlarge the wheels of Borel, because it makes it a less useful "aggressive" skate. Proceeding in a manner that is contrary to accepted knowledge in the art is in fact

evidence of non-obviousness. *In re Hedges*, 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986); MPEP §2146(X)(D)(3).

Accordingly, while it is the general rule that the discovery of an optimum value of a known result effective variable is obvious, it is not the case when the art that is being proposed to be optimized in fact does not recognize the optimum value as being an optimum. The art in this case would not recognize 100 mm as an optimum size for Borel, and this is clearly established by the Declaration of Mr. De Lazzari.

The same is generally true for the distance between the first and second binding points as required by claim 5. There are two points to be considered here. First, none of the prior art recognizes this distance as a result effective variable. Thus, it is not obvious to discover the optimum range for this variable. Secondly, the importance of the range for the present invention is because it is important in combination with the size of the wheel. Thus the limitation should not be considered on its own, but rather in combination with the wheel size limitation.

In the Examiner's arguments, the Examiner states that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. However, as is established by the above discussion and the accompanying evidence in the form of the Declarations by Mr. De Lazzari and Mr. Prandina, the prior art that has been cited by the Examiner does not in fact satisfy the claimed structural limitations. It is not obvious to enlarge the wheels according to Borel, and the commercial embodiment of Borel, the so-called Vinny Minton model, clearly does not satisfy the claim limitations. Nor would it be obvious to modify Borel to arrive at the present claim, because it then goes against the idea of having an aggressive skate, which is also not obvious.

Thus, the Examiner's arguments that the differences are merely a matter of the way in which the apparatus is intended to be employed is incorrect. Applicants have presented a combination of features that results in a structure that is both new and that is also not obvious from the prior art. The prior art which the Examiner has cited thus in fact fails to present a *prima facie* case of obviousness.

The Examiner also stated that is old and well know in the art to manufacture wheels having a diameter of at least 100 mm. This position by the Examiner is respectfully traversed; if the Examiner is going to take this position, the Examiner is requested to cite evidence supporting the conclusion. The prior art is discussed in the background of the present invention, and the actual claim limitation is that there are at least four wheels, and the at least four wheels are solely wheels having a diameter of at least 100 mm.

Additional evidence of the non-obviousness of the present invention, submitted herewith in the form of the Declarations of Mr. Prandina and Mr. De Lazzari, will be discussed below.

#### Evidence of Non-Obviousness

The Declaration by Mr. De Lazzari is that of an individual with a technical background with a long history (over 10 years) in skates, as well as research and development of in-line skates. Mr. De Lazzari has reviewed both the present application and the Borel patent. Mr. De Lazzari's Declaration establishes that to one of ordinary skill in the art, the increase in diameter of the wheel of the Borel patent is not obvious, because it is directed to an aggressive skate. Increasing this size of the Borel wheel would be in fact against the knowledge of one of skill in the art. Further, as Mr. De Lazzari states, an increase in the size of the diameter of the wheels in Borel would result in that the skate becomes higher from the ground, which is not desired and not obvious to one of skill in the art.

Mr. De Lazzari's Declaration also establishes that the limitation with respect to the distance between the first and second binding points works together with the wheel size limitation, arriving at an elegant solution to the problem described in the specification of the present application with respect to Fig. 1. Thus, Mr. De Lazzari states that it would not have been obvious to one of ordinary skill in the art to arrive at the combination of claim 5.

There is further objective evidence of non-obviousness. The Declaration of Mr. Prandina clearly establishes copying of the present invention by competitors, the clear professional approval of those involved in this art as well as the commercial success of the present invention.

The court of Customs and Patent Appeals, as well as the Court of Appeals for the Federal

Circuit, takes the position that evidence of non-obviousness should be received, evaluated and accorded weight. Such evidence should always be considered, even at the examination stage. *In re Sernaker*, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983).

In fact, evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all the evidence, not just when the decision maker remains in doubt after reviewing the art. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983).

Further, the reaction of experts in the field to the invention upon its initial public appearance has been given weight in determining patentability. *Walkin Engineering Co., Inc. v. Fata Aluminium, Inc.*, 278 F.3d 1366, 1373, 61 USPQ 2d 1545 (Fed. Cir. 2002).

Turning again to the Declaration of Mr. Prandina, it can be seen from section 4 that a skate according to the invention as defined by claim 5 was introduced in 2003. The FILA team used these skates, and won almost all of the races at the 2003 World In-Line Cup as well as three In-Line Cups in a row. As noted in the Declaration, other skaters switched to the new setup as fast as possible.

As can be seen from section 6 of the Declaration, skaters competing in the world championships were required to race with 5 x 84 mm wheels after racing with 4 x 100 mm wheels according to the present invention. Their performance was so poor that the skaters themselves pushed the official skating federations to change their rules in order to allow the world championships to be conducted with the 4 x 100 mm big wheel concept according to the present invention. As can be seen from the attachments to the Declaration of Mr. Prandina, the skating federations then proceeded to change their rules in 2005. Exhibits B1 and B2 attached to the Declaration evidence the fact that the rules were so-changed.

Accordingly, there is clear evidence in the record that skaters as well as skating federations strongly approved of the technological development represented by independent claim 5 of the present invention, to the point that they only wish to race with this setup, and to the point that they pushed international federations to change their rules to allow for the use of

the setup in the world championships.

Copying by others is also evidence that tends to indicate the patentability of an invention. See for example MPEP §716.06. Indeed, numerous federal circuit decisions have approved reliance on copying as evidence of non-obviousness.

Turning back to the Declaration of Mr. Prandina, it can be seen, beginning in section 4, that all major competitors followed the concept of the present invention, which is in fact now commonly used. Please carefully review the exhibits accompanying the Declaration as well as the discussion in section 4 of the Declaration. The success of the 100 mm setup according to the present invention resulted in that, the year following the introduction into the market of the concept according to the present invention (at which time no other major in-line skate brands were presenting any similar model) most of the brands came out with a similar model. This includes K2, Salomon and Rollerblade.

The Declaration of Mr. Prandina further establishes the commercial success of the invention. As can be seen from Attachment A, attached to the Declaration of Mr. Prandina, after the introduction of the 4 x 100 mm setup according to claim 5 of the present invention for the 2003-2004 season, sales of the 80/84 mm setups dropped dramatically while sales of the 4 x 100 mm setup increased.

### Conclusion

From the above it is submitted that the Examiner has failed to present a *prima facie* case of obviousness of claim 5, because it is in fact not obvious to optimize or modify the parameters which the Examiner has modified, i.e. the size of the wheel and the distance between the binding points. The present invention must, further, be considered in the context of the combination of these features, which work together so as to result in the invention of claim 5. The accompanying Declarations of Mr. De Lazzari and Mr. Prandina further establish the non-obviousness of claim 5. Accordingly, it is respectfully submitted that the rejection must be withdrawn and claim 5 allowed at this time. Such is respectfully requested.

In view of the above amendments and remarks, it is submitted that the present application

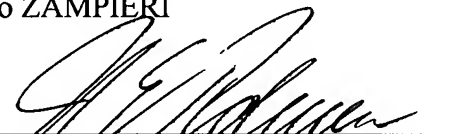


is now in condition for allowance, and the Examiner is requested to pass the case to issue. If the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact Applicants' undersigned representative.

Respectfully submitted,

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